



## Overview of MOPITT Data at the ASDC

**The MOPITT Project** – Measurements Of Pollution In The Troposphere ([MOPITT](#)) is an instrument flying on NASA's Earth Observing System [Terra](#) spacecraft, measuring tropospheric carbon monoxide (CO) on the global scale since March 2000. MOPITT measurements enable scientists to analyze the distribution, transport, sources and sinks of CO, a trace gas produced by methane oxidation, fossil fuel consumption and biomass burning.

**Data Products** – MOPITT measurements yield atmospheric profiles of CO volume mixing ratio and CO total column values using near-infrared radiation at 2.3  $\mu\text{m}$  and thermal-infrared radiation at 4.7  $\mu\text{m}$ .

MOPITT Version 6 Level 2 and Level 3 products are now available for the entire MOPITT mission. Generally, V6 Level 2 and Level 3 products should become available between three weeks and two months after the actual observations; this data latency is the result of the dependency on the MERRA reanalysis. Version 4 and Version 5 Level 2 and Level 3 products are also available.

**Documentation** – See [Data Products](#) for descriptions of the different products. User's Guides available on the [Publications](#) page should be consulted before attempting to analyze the MOPITT products.

**Dataset Organization** – The datasets are stored as hdf files and are organized by processing level and sensor: with Level 1 being full resolution, time and geo-referenced instrument data, Level 2 being the derived geophysical variables, and Level 3 being the variables mapped on a uniform space-time grid.

**Ordering Data** – From the [ASDC MOPITT](#) page, you can select and order data products. You can also directly use the [Reverb Search Tool](#), and for Level 2 data only, the [MOPITT Search and Subsetting Web App](#). Register as a New User, if you have not already registered. MOPITT data products are also available from the [ASDC Data Pool](#). The Data Pool is an on-line data cache that provides FTP access to select ASDC data products. Data files are stored in directories based on data product and acquisition date.

**Data Read and Display Tools** – Global plots of MOPITT CO products at 1 degree horizontal resolution can be viewed for each day and month on the [MOPITT Visualization](#) page. There are some Python, NCL, Matlab, and IDL examples on the HDF Group's website: <http://hdfeos.org/zoo/>.

**HDFView** is a free, easy-to-use visual tool from the non-profit HDF Group for browsing and editing HDF4 and HDF5 files: <http://hdfeos.org/software/tool.php#HDFVIEW>.

**My NASA Data** is an easy-to-use interface that displays selected MOPITT datasets, with several options to output the data. Go to the website and use the Live Access Server – Advanced: [MY NASA DATA](#).

We hope this information is useful for you. If you have any questions, please contact us at [support-asdc@earthdata.nasa.gov](mailto:support-asdc@earthdata.nasa.gov).

NASA Langley ASDC User Support

*Preserving, managing, and sharing atmospheric data for the common good*